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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/527,949	11/14/2005	Serge Grizzo	095516-9005-00	2378

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EXAMINER	
FRAZIER, BARBARA S	
ART UNIT	**PAPER NUMBER**
1611	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/527,949	GRIZZO ET AL.	
	Examiner	Art Unit	
	BARBARA FRAZIER	1611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 November 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *7/10/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

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DETAILED ACTION

1. Claims 1-6 are examined.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 4, and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Wilhelm et al., US Patent 5,167,708, as evidenced by Rasmussen, US Patent 4,572,739.

The claimed invention is drawn to a process according to claim 1:

> 1. (Original) A process for preparing a pigmentary composition comprising particles (p) with a chromium oxide base, in which the chromium present as chromium (VI) represents at most 5 ppm of the total mass of the particles (p), said process comprising a stage (E) consisting of bringing into contact:
>
> (a) hydrated chromium oxide-based particles (p_0), with a chromium (VI) content between 20 and 1000 ppm of the total mass of said particles (p_0); and
>
> (b) an iron (II) compound.

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Wilhelm et al. teach that it is known to reduce chromium(VI) in a chromium oxide pigment suspension with $FeSO_4$ (i.e., iron(II) sulfate). The original concentration of chromium(VI) is 200 ppm (see Example 2).

Wilhelm et al. do not specifically state that the pigment reduced with iron(II) sulfate is "chromate-free", or at most 5 ppm of the total mass of the chromium oxide particles. However, Wilhelm et al. do state that Cr(VI) must be reduced and removed (col. 1, lines 40-45), and after the reduced chromium is precipitated and separated off, the wash water may be discharged as effluent (col. 2, lines 48-52). Therefore, one skilled in the art would recognize that the resultant chromium oxide pigment would be free of Cr(VI). Further, one skilled in the art would recognize that "chromate-free" would mean less than 5 ppm. As evidence, Rasmussen teaches that, when chromate(VI) is reduced with ferrous sulphate, no measurable content of water-soluble chromate means that the content of free chromate is less than 0.1 ppm Cr (col. 9, lines 11-14). Therefore, the disclosure of Wilhelm et al. anticipates the claimed invention.

Regarding claim 4, Wilhelm et al. teach that it is known to use iron(II) sulfate as a reducing agent for chromium(VI) (see Example 2).

Regarding claim 6, the phrase "a pigmentary composition intended for use in a cosmetic formulation" merely describes an intended use of the composition, and does not impart patentable weight to the claim.

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Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wilhelm et al., US Patent 5,167,708, as evidenced by Rasmussen, US Patent 4,572,739.

The claimed invention and the inventions of Wilhelm et al. and Rasmussen are recited above (see paragraph 3).

Regarding claim 3, Wilhelm et al. is silent with respect to the ratio of the iron (II) used to the chromium (VI) initially found in the chromium oxide particles.

However, Examiner notes that the ratio taught in claim 3 is merely an excess of reducing agent (i.e., iron(II) sulfate) used with respect to the agent to be reduced (i.e., chromium(VI)).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to use an excess of iron(II) with respect to the amount of chromium(VI) present within the range taught by Applicants, and would be able to select optimal amounts of excess iron(II) within as a matter of routine experimentation. One skilled in the art of chemistry would have been motivated to use such an amount because doing so would result in the driving the reduction of chromium (VI) to Cr^{3+} to completion and provide the result of complete removal of the hazardous

material chromium (VI). Therefore, absent unexpected results, the limitation of quantifying the excess amount of iron(II) reducing agent used does not impart patentability to the claim.

8. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wilhelm et al., US Patent 5,167,708, as evidenced by Rasmussen, US Patent 4,572,739 as applied to claims 1, 4, and 6 above, and further in view of Wallar et al., US Patent 6,410,470.

The claimed invention and the inventions of Wilhelm et al. and Rasmussen are recited above (see paragraph 3).

Regarding claim 2, Wilhelm et al. is silent with respect to the particle size of the chromium oxide pigment particles.

Wallar et al. teach that the typical size of fine pigment-grade chromium oxide prior to removal of chromium metal impurities is a particle size of about 3 microns (col. 2, lines 1-10).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to use chromium oxide particles having a particle size of about 3 microns in the process of Wilhelm et al., thus arriving at the claimed invention. One skilled in the art would have been motivated to do so because the size taught by Wallar et al. is the typical size

for pigment-grade chromium oxide, and therefore would be the size of choice for chromium oxide pigment.

9. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wilhelm et al., US Patent 5,167,708, as evidenced by Rasmussen, US Patent 4,572,739 as applied to claims 1, 4, and 6 above, and further in view of Bernhard, US Patent 4,456,486.

The claimed invention and the inventions of Wilhelm et al. and Rasmussen are recited above (see paragraph 3).

Regarding claim 5, Wilhelm et al. is silent with respect to the pH of the process.

Bernhard teaches that, when chromium(VI) salts are reduced to chromium(III) in a pigment suspension, the pH value in the pigment suspension is preferably between 4.5 and 9 (col. 3, lines 44-54).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to perform the process of Wilhelm et al. at the pH taught by Bernhard, thus arriving at the claimed invention. One skilled in the art would have been motivated to do so because the pH range taught by Bernhard is described as the preferred range for the reduction of chromium(VI) with a reducing agent, and one skilled in the art would be able select an optimal pH within said range as a matter of routine experimentation. One would reasonably expect success from using the pH

taught by Bernhard in the process of Wilhelm et al. because both processes are drawn to the reduction of chromium(VI) to chromium(III) with a reducing agent in a pigment suspension.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BARBARA FRAZIER whose telephone number is (571)270-3496. The examiner can normally be reached on Monday-Thursday 9am-4pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward can be reached on (571)272-8373. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BSF

/Sharmila Gollamudi Landau/
Primary Examiner, Art Unit 1611